of rain or communicating water. The term plutonic rocks is therefore wholly misapplied, so far as regards volcanic influence; that they bear some resemblance to lavas is very natural to suppose, for analogous lavas are of analogous formation; and the action of the fire, although it causes a displacement and eruption of the material, and more finely levigates the organic remains of which it is composed, cannot alter the character of its earths; still, there is no instance on record of lava passing into the state of porphyry, and therefore no foundation for the geological speculations of the present day, built upon these supposed plutonic rocks. On the other hand, considered as one of the first-formed rocks after limestone, and when of purely oceanic materials, it may be considered *primary*; but considered in common with others, as even now forming in those hot distant climates, it is equally reasonable to term it *secondary* and *recent*: the reader will therefore bear in view these distinctions, carefully avoiding the common vulgar error of generalizing on particular phenomena, for the operations of nature, camelion-like, indefinitely vary.

CHURCH-BUILDING INTELLIGENCE, &c.

Church of England School at Overbury, Gloucestershire.—It is intended to erect a school-house in the above parish, for educating the children of the poor. A very convenient site for the building has been promised on purchase.

An additional donation of 500*l.* from the Rev. Dr. Warneford has been announced subsequently to laying the foundation-stone of the chapel attached to Queen's College, Birmingham.

The Bill prepared by the vicar for the new arrangement of the parish of Leeds has received the final consent of the Ecclesiastical Commissioners, and will be cordially supported by her Majesty's Government.

RAILWAY INTELLIGENCE.

Atmospheric Railway to Halifax.—Mr. G. Buckston Browne, a civil engineer, sets forth in a local paper, a scheme for an Atmospheric Railway from Halifax to Bradford. It appears that the line would be about 7¼ miles in length, and that it is peculiarly adapted for the application to the Atmospheric principle, having a short summit level about half-way between the two termini, at which point the entire stationary engine establishment would be concentrated. The trains (adds Mr. Browne) will thus be drawn up to the summit, and the remainder of the journey be performed by gravity alone; a single line of rails will be quite sufficient for double the amount of traffic that can be brought upon it. He proposes to apply also Messrs. Cooke and Wheatstone's electrical telegraph, in connection with which, says Mr. Browne, the Atmospheric Railway "combines a degree of safety, with speed, unattainable by the locomotive; it admits also of being worked in a great variety of ways; the trains may traverse the whole distance without stoppage, or they may stop at any point, either ascending or descending, where it may be found profitable to do so; and further, one very important advantage which this system has over the locomotive consists in the facts, that while the locomotive, to be worked economically, requires a maximum load, and of course a limited number of trains, the Atmospheric system admits of an unlimited number of trains, with very little increased cost.

Exeter and Crediton Railway.—We understand that for the twelve hundred shares in this undertaking there have been applications to the amount of five thousand. Nothing can more forcibly display the public confidence in this species of investment.—*Exeter Gazette.*

German Railways.—The *Wurzburg Gazette* informs us, from Breslau, that the treaty for the construction of the Thuringen railroad has been signed by the governments interested in it, viz., Prussia, Saxe Weimer, and Saxe Coburg Gotha.

The York and Scarborough Railway Bill was read a third time, in the House of Lords, on Tuesday evening week, and passed. The length of the line is about forty-two miles, with a branch of rather more than six miles; the estimated cost is 260,000*l.*

PATENTS RELATING TO ARCHITECTURE, ENGINEERING, &c.

Granted between 27th April and 23rd of May, 1846.

[SIX MONTHS FOR ENROLMENT.]

Pierre Armand Lecomte de Fontainemoreau, of Skinner's-place, Size-lane, merchant, for a new mode of constructing barometers and other pneumatic instruments, being a communication. April 27.

John Dixon, of Wolverhampton, iron-master, for improvements in heating air for blast furnaces, and for other uses. April 27.

Arthur Wall, of Bisterne-place, Poplar, surgeon, for certain improvements in the manufacture of steel, copper, and other metals. April 27.

Isaiah Davies, of Birmingham, engineer, for certain improvements in steam-engines, part of which improvements are applicable to impelling wheel carriages. April 27.

Edward Cobbold, of Melford, Suffolk, master of arts, clerk, for improvements in the preparation of peat, rendering it applicable to several useful purposes, particularly for fuel. April 27.

William Jeffries, of Little Sussex-place, Hyde Park-gardens, for improvements in sweeping chimneys, and in apparatus to prevent chimneys from smoking. April 30.

Robert Gordon, of Heaton Foundry, Stockport, millwright and engineer, for improvements in grinding wheat and other grain, and in dressing flour or meal, which improvements in grinding are also applicable to grinding cements and other substances. April 30.

William Fairbairn and John Hethrington, of Manchester, engineers, for certain improvements in stationary steam-boilers, and in the furnaces and flues connected therewith. April 30.

Jacob Samuda, of Southwark iron works, engineer, and Joseph D'Aguilar Samuda, of the same place, engineer, for certain improvements in the manufacture and arrangement of parts and apparatus for the construction and working of atmospheric railways. April 30.

John Melville, of Upper Harley-street, Esq., for improvements in the construction and modes of working railroads. April 30.

James Hayman, of Mount-street, Lambeth, corn-dealer, for an improved construction and arrangement of certain parts of omnibuses and other vehicles. April 30.

Robert Corden, of Nottingham, tobacco-manufacturer, and Sidney Smith, of the same place, engineer, for improved economical apparatus for making gas for illuminations. April 30.

William Colborne Cambridge, of Market Lavington, Wilts, agricultural machine maker, for certain improvements, first, in machinery for rolling or crushing ground; second, for cutting and threshing agricultural products; and, third, an improved adaptation of horse power to threshing-machinery, which may also be applied to other purposes. April 30.

Charles Watterson, of the firm of Macguire, Watterson, and Co., Manchester, soap manufacturers, for certain improvements in the manufacture of soap. May 8.

Joseph Wright, of Gough-street, Gray's-inn-lane, coach-builder, for certain improvements in railway and other carriages. (Being a communication.) May 8.

James Grant, of Vine-street, Westminster, gas-fitter, for improvements in the means of ventilating buildings and other places where a change of air is required. May 8.

William Vose Pickett, of Tottenham, Esq., for certain methods of preparing in metal, or other substances, the parts and features of architectural construction and decoration, and for applying the same in the construction and arrangement of houses and other buildings. May 8.

Thomas Grimsley, of Oxford, sculptor, for a new method of constructing a self-supporting fire-proof roof, and other parts of buildings, with bricks and tiles formed from an improved machine. May 14. Two months.

Edward Hill, of Hart's Hill, Worcester, iron manufacturer, for improvements in the manufacture of railway and other axles, shafts, and bars. May 14.

William Walker, jun., of Brown-street, Manchester, hydraulic engineer, for improvements in warming and ventilating apartments and buildings. May 14.

Peter Armand Lecomte de Fountainemoreau, of Skinner's-place, Size-lane, London, for a new and improved mode or method of paving and covering roads and other ways or surfaces, being a communication. May 18.

Henry Holmes, of Derby, cutler, for improvements in the manufacture of bricks, tiles, and other plastic substances. May 15.

John M'Intosh, of Glasgow, gentleman, for certain improvements in revolving engines, and an improved method of producing motive power, and of propelling vessels. May 17.

James Pilbrow, of Tottenham, civil engineer, for certain improvements in the machinery for, or a new method of propelling carriages on railways and common roads, and vessels on rivers and canals, &c. May 17.

Thomas Martin, of Withybush, Haverfordwest, Pembroke, for certain improvements in the construction of slated roofs, flats or floors, tanks, or cisterns, or reservoirs for water, and in pipes, tubes, or channels of the same material, for the conveyance of water. May 22.

James Petrie, of Rochdale, Lancaster, engineer, for certain improvements in steam engines. May 22.

James Bremner, of Pulteney Town, Caithness, civil engineer, for certain arrangements for constructing harbours, piers, and buildings in water, for cleansing harbours, and for raising sunken vessels. May 22.

John Henry Moor, of Lincoln's-inn-fields, gent., for certain improvements in the construction of carriages generally. May 23.

Richard Wilson, of Newcastle, builder, for improvements in the manufacture of tiles. May 23.

John Wilkie, of Glasgow, mechanic, for improvements in machinery or apparatus for working wood into the various forms required for making doors, window-shutters, window-sashes, mouldings, flooring, and other purposes. May 23.

John Taylor, of Duke-street, Adelphi, gent., for certain new mechanical combinations, by means of which economy of power and of fuel are obtained in the use of the steam-engine. May 23.

SCOTCH PATENTS.

William Henry Barlow, of Leicester, civil-engineer, for improvements in the construction of keys, wedges, or fastenings for engineering purposes. April 24.

John Dixon, of Wolverhampton, ironmaster, for improvements in heating air for blast furnaces, and for other uses. April 24.

John M'Intosh, Glasgow, for certain improvements in revolving machines, and an improved method of producing motive power, and of propelling vessels. April 30.

William Irving, of 102, Regent-street, Lambeth, Surrey, for improved machinery and apparatus for cutting and carving substances to be applied for inlaying and other purposes. May 3.

James Murray, of the Garnkirk Coal Company, in the parish of Cadder, of Lanark, Scotland, for a new method of using and applying artificial gas made from coal, oil, or other substances for lighting and ventilating caverns, pits, or mines, or other pits, where minerals or metals are worked or extracted. May 3.

James Bremner, residing at Pulteney Town, Caithness, civil-engineer, for certain arrangements for constructing harbours, piers, and buildings in water, for cleansing harbours, and for raising sunken vessels. May 9.

John Wilkie, of Glasgow, mechanic, for improvements in machinery or apparatus for working wood into the various forms for making doors, window-shutters, window-sashes, mouldings, flooring, and other purposes. May 16.

BRISTOL DOCKS.—The Dock Company have requested the advice and assistance of Mr. Brunel, respecting the extensive repairs necessary to be effected to the narrow lock of Cumberland Basin.